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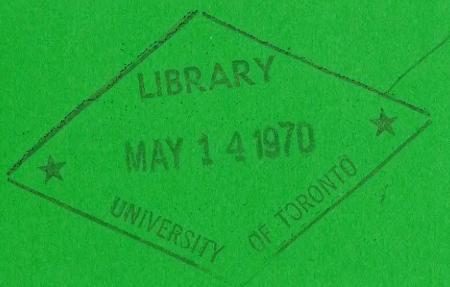


Statistical centre

IRON FOUNDRIES

CENSUS OF MANUFACTURES

1967



ONTARIO STATISTICAL CENTRE
ECONOMIC AND STATISTICAL SERVICES DIVISION
DEPARTMENT OF TREASURY AND ECONOMICS

Hon. Charles S. MacNaughton,
Treasurer of Ontario and Minister of Economics

H. Ian Macdonald,
Deputy Minister



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SYMBOLS

- * Confidential
- S Suppressed to protect confidential items
- Nil or Zero
- Amount too small to be expressed
- .. Figures not available
- ... Figures not appropriate or not applicable
- () Figures within brackets are negative

NOTES

1. Figures may not add to the total because of rounding.
2. To ensure confidentiality, confidential items are either combined with other items or suppressed.
3. If an item is combined with other items, this is indicated by brackets or by footnotes.
4. Where a confidential item cannot be meaningfully combined with other items, the confidential item is suppressed by placing an asterisk instead of the actual figure, and the confidential item lumped with "All others".

INTRODUCTION

This report is one of a series designed to provide information on industries and products covered in the 1966 and 1967 Census of Manufactures. The collection of manufacturing data by the Ontario Statistical Centre is carried out under a statistical arrangement negotiated with the Dominion Bureau of Statistics in accordance with the provisions of the Federal and Provincial Statistics Acts.

The use of the same questionnaire as the Dominion Bureau of Statistics provides for comparability of national and provincial manufacturing statistics. In a few cases, there may be slight variances between the statistics published by the Ontario Statistical Centre and the Dominion Bureau of Statistics. These are mainly due to different interpretations in editing and may also be the result of estimating outstanding questionnaires. As new information becomes available, the statistics may be revised.

The classification of establishments included in this report is based upon the definitions embodied in the Dominion Bureau of Statistics Standard Industrial Classification. "Concepts and Definitions" notes prepared by the Dominion Bureau of Statistics for the Census of Manufactures are included in this report.

All correspondence concerning this report should be directed to the Ontario Statistical Centre.

The Iron Foundries Industry includes establishments primarily engaged in manufacturing iron castings, including cast iron pipe and fittings. Other products produced by establishments of this industry are chain, conduit fittings, parts for stoves, heaters, furnaces, etc.

In 1967, the value of shipments of goods of own manufacture in Ontario was \$137 million, a decrease of 7 per cent from 1966. Ontario's shipments represented 72 per cent of the total Canadian shipments. The closing inventories of finished goods showed an increase of 22 per cent above 1966.

Moreover, the cost of materials, fuel and electricity decreased by 8 per cent from 1966. Average production employment in manufacturing activities reported a decrease of 10 per cent from 1966. Value added by manufacture amounted to \$81 million, which was 6 per cent lower than in 1966. Value added to total activity decreased by 7 per cent in 1967.

TABLE 1
PRINCIPAL STATISTICS, ONTARIO AND CANADA, 1965 TO 1967

Year	Establishments	Manufacturing Activities				Total Activities					
		Production and related workers	Man-hours paid	Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value ¹ added	Working owners and partners	Employees	Value added	
		'000		\$'000		\$'000		\$'000	Number	With-drawals	Number
Ontario											
1965	61	7,441	16,335	40,553	3,496	49,219	119,215	66,638	13	38	8,533
1966	63	8,546	18,165	46,985	3,898	58,240	146,890	86,303	9	36	9,700
1967	62	7,682	15,932	42,644	4,123	52,815	137,266	80,926	8	43	8,805
Canada ²											
1965	137	10,035	22,081	52,028	4,293	71,692	167,477	93,622	28	111	11,714
1966	134	11,315	24,205	59,821	4,884	82,554	202,380	117,780	24	90	13,027
1967	134	10,259	21,470	55,127	5,102	76,748	189,579	108,944	22	90	11,970
Ontario/Canada ratio (%)	1967	46	75	74	77	81	69	72	74	36	48
										74	76
											74

¹ "Value Added by Manufacture" is computed from value of shipments plus the net change in inventories of finished goods and goods in process, less cost of materials, fuel and electricity.

² As published by DBS.

TABLE 2

FUEL AND ELECTRICITY USED IN MANUFACTURING ACTIVITY, ONTARIO, 1966 AND 1967

Description	Unit	1966		1967		\$'000
		Quantity	Cost	Quantity	Cost	
1. Large establishments reporting commodity detail:						
Bituminous coal	Ton	326	5	94	1	
(a) From Canadian mines	"	25,322	382	21,743	345	
(b) Imported	"	-	-	-	-	
Sub-bituminous coal (from Alberta mines only)	"	73	1	81	1	
Anthracite coal	"	-	-	-	-	
Lignite coal	"	-	-	-	-	
Coke	Imp. gal.	546	15	504	14	
Gasoline	"	302,221	113	270,895	102	
Fuel oil including kerosene or coal oil	"	2,886,576	368	2,906,979	365	
Wood	Cord	255	3	259	3	
Gas:	Imp. gal.	460,956	94	305,286	80	
	M.Cu.ft.	-	-	-	-	
(a) Liquefied petroleum gases	"	1,260,097	935	1,117,903	872	
(b) Other manufactured gas			8		6	
(c) Natural gas			1,670	179,179,557	1,973	
Other fuel	Kwh.	144,883,613	272	..	316	
Electricity purchased	Pound	..				
Steam purchased						
2. Small establishments not reporting commodity detail:						
Estimate for fuel and electricity			
3. All establishments:		31		44		
TOTAL FUEL AND ELECTRICITY USED		3,898		4,123		

TABLE 3

MATERIALS AND SUPPLIES USED, ONTARIO, 1966 AND 1967

Description	Unit	1966		1967	
		Quantity	Cost \$'000	Quantity	Cost \$'000
A. MANUFACTURING ACTIVITY					
1. Materials used:					
Castings, iron (gray and malleable) and steel	ton	8,798	2,363	8,309	1,366
Pig iron, all grades	"	167,785	10,099	163,241	9,302
Steel, hot or cold rolled (except alloy and tool steel):					
Bars	"	1,696	284	2,093	297
Plates, sheets and strip	"	1,075	162	1,188	177
Structural shapes, unfabricated (channels, angles, etc.)	"	289	59	282	56
Wire	"	*	*	18	4
Alloy and tool steel in all forms:					
Alloy steel and stainless		...	34	...	65
Tool steel (all types including high speed)		...	18	...	*
Scrap iron and steel of all kinds-purchased	"	397,381	16,896	324,564	12,357
Pipe, tubing and fittings - iron and steel		...	21	...	38
Other iron and steel	"	14,203	124	12,886	*
Ferro-alloys		2,581	2,581	2,611	
Non-ferrous metals in all forms (including scrap):					
Aluminum - castings, sheet and other forms	lb.	85,660	90	61,027	69

Table 3 - Materials and Supplies Used, Ontario, 1966 and 1967 - continued

Description	Unit	1966		1967	
		Quantity	Cost \$'000	Quantity	Cost \$'000
Copper, alloyed (brass and bronze, etc.)	1b.	503,215	232	514,782	320
Copper, sheet, wire and other forms; and other non-ferrous metals	"	626,002	541	849,366	264
Zinc	"	4,622	92	4,233	127
Babbit metal and solders	"	...	4	...	4
Lead, nickel and tin	"	799	799	...	756
Other materials and supplies:					
Paints and varnishes	ton	118,179	193	116,599	207
Foundry coke (used in cupola)	"	279,785	4,411	3,992	
Foundry sands (including core and moulding sands)	1b.	2,458,260	1,762	2,322,756	1,690
Plumbago and graphite	M bd. ft.	1,698	181	2,556,598	166
Lumber	"	...	127	1,042	99
Firebrick and cupola blocks	ton	9,300	457	...	540
Fireclay	Imp. gal.	401,260	196	3,884	126
Core oil	*	406	406	280,174	291
Sulphuric acid, 100%		*	*	*	*
All other materials and components used		...	5,944	...	8,004
Estimated cost of materials used by small establishments		...	437	...	476
2. Containers and other packaging materials and supplies used		...	376	...	403
3. Operating, maintenance and repair supplies used		...	8,698	...	8,529

Table 3 – Materials and Supplies Used, Ontario, 1966 and 1967 – continued

Description	Unit	1966		1967	
		Quantity	Cost \$'000	Quantity	Cost \$'000
4. Amount paid out to others for work done on materials owned by establishments					
		...	655	...	479
		...	<u>58,240</u>	...	<u>52,815</u>
	TOTAL				
B. NON-MANUFACTURING ACTIVITY					
1. Purchases of goods for resale in same condition as purchased					
		...	4,716	...	3,005
2. All other materials and supplies used					
		...	893	...	1,302
	TOTAL				
		...	<u>5,610</u>	...	<u>4,307</u>
C. TOTAL INPUT OF MANUFACTURING AND NON-MANUFACTURING ACTIVITIES					
		...	<u>63,850</u>	...	<u>57,123</u>

TABLE 4

SHIPMENTS OF GOODS, ONTARIO, 1966 AND 1967

Description	Unit	1966		1967	
		Quantity	Value \$'000	Quantity	Value \$'000
A. MANUFACTURING ACTIVITY					
1. Products shipped:					
Commercial castings (sold as such)	ton	300,569	254,986	75,361	
Grey iron castings	"	29,964	13,122	15,371	
Malleable iron castings					
Non-ferrous castings - aluminum, brass, bronze, copper, lead, etc.	lb.	1,323,646	821	915	
	ton	123,434	14,284	14,400	
Castings and forgings	"	94,388	3,016	2,489	
Machinery (including agricultural)					
Cast iron pipe and fittings	"	19,206	85,394	23,086	
Malleable iron pipe fittings, all sizes	"	5,189	4,849	*	
Plumbing equipment and fittings		...	1,384	1,146	
Valves (iron and steel)		...	474	259	
Motor vehicle accessories, parts and assemblies					
Patterns and models					
Amount received for repair work					
All other products					
2. Amount received in payment for work done on materials and products owned by others			289	...	190

Table 4 – Shipments of Goods, Ontario, 1966 and 1967 – continued

Description	Unit	1966		1967	
		Quantity	Value \$'000	Quantity	Value \$'000
3. LESS adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		...		144	...
TOTAL ADJUSTED VALUE OF SHIPMENTS AND WORK DONE		...		<u>146,890</u>	...
B. NON-MANUFACTURING ACTIVITY					
1. Shipments of goods purchased and sold in same condition as purchased		...		6,087	...
2. Other revenues		...		143	...
TOTAL		...		<u>6,230</u>	...
C. TOTAL OUTPUT OF MANUFACTURING AND NON-MANUFACTURING ACTIVITIES		...		<u>153,120</u>	...
					<u>141,261</u>

TABLE 5

EMPLOYMENT AND PAYROLL, ONTARIO, 1966 AND 1967

Employees	1966				1967			
	Male	Female	Total	Salaries and wages	Male	Female	Total	Salaries and wages
	Number			\$'000	Number			\$'000
Production and related workers								
Manufacturing	8,431	115	8,546	46,985	7,562	120	7,682	42,644
Others ..	1	-	1	2	10	-	10	55
Administrative and office	841	256	1,097	8,152	811	243	1,054	8,591
Sales and distribution	52	4	56	385	54	5	59	411
TOTAL EMPLOYEES	9,325	375	9,700	55,524	8,437	368	8,805	51,702

TABLE 6

MONTHLY PRODUCTION EMPLOYEES IN MANUFACTURING ACTIVITY, ONTARIO, 1966 AND 1967

Month	1966			1967		
	Male	Female	Total	Male	Female	Total
Establishments reporting monthly detail (large establishments only):						
January	8,367	89	8,456	7,937	123	8,060
February	8,416	104	8,520	7,975	122	8,097
March	8,555	113	8,668	7,807	122	7,929
April	8,707	120	8,827	7,754	123	7,877
May	8,709	122	8,831	7,737	124	7,861
June	8,777	120	8,897	7,136	120	7,256
July	7,031	121	7,152	6,861	120	6,981
August	7,984	109	8,093	7,251	115	7,366
September	8,202	119	8,321	7,246	121	7,367
October	8,103	112	8,215	7,079	114	7,193
November	8,146	116	8,262	7,229	115	7,344
December	8,331	116	8,447	7,129	108	7,237
Averages	8,277	113	8,390	7,428	119	7,547
Small establishments reporting annual averages	154	2	156	134	1	135
AVERAGE FOR ALL ESTABLISHMENTS	8,431	115	8,546	7,562	120	7,682

TABLE 7
CALCULATION OF INPUT, OUTPUT AND VALUE ADDED, ONTARIO, 1966 AND 1967

Description	1966		1967		\$'000	Total
	Manufacturing activity	Non manufacturing activity	Total	Manufacturing activity		
OUTPUT						
1 Shipments and other revenue	146,890	6,230	153,120	137,266	3,995	141,261
Inventories - Goods of own manufacture:						
Add closing	3,906	...	3,906	2,856	...	2,856
- Goods in process	6,514	...	6,514	7,915	...	7,915
- Finished goods	3,257	...	3,257	3,667	...	3,667
Deduct opening	5,612	...	5,612	6,505	...	6,505
- Goods in process						
- Finished goods						
2 Net inventory change	1,552	...	1,552	599	...	599
3 Gross output (1+2)	148,441	6,230	154,671	137,865	3,995	141,860
INPUT						
4 Purchases of goods not of own manufacture	...	4,716	4,716	...	3,005	3,005
Inventories - Goods not of own manufacture:						
Add opening	...	374	374	...	379	379
Deduct closing	...	370	370	...	435	435
5 Cost of goods sold (not of own manufacture)	...	4,720	4,720	...	2,950	2,950
6 Materials, supplies, etc.	58,240	893	59,134	52,815	1,302	54,117
7 Fuel and electricity	3,898	-	3,898	4,123	-	4,123
8 Gross input (5+6+7)	62,138	5,613	67,751	56,938	4,252	61,190
9 VALUE ADDED (3-8)	86,303	617	86,920	80,927	(256)	80,670

TABLE 8
INVENTORIES, ONTARIO, 1966 AND 1967

Inventories	1966		1967	
	Opening	Closing	Opening	Closing
book value \$'000				
1 Manufacturing				
Materials, supplies, etc.	6,860	6,822	6,737	6,037
Goods in process	3,257	3,906	3,667	2,856
Finished goods of own manufacture	5,612	6,514	6,505	7,915
TOTALS	15,729	17,242	16,909	16,808
2 Non-manufacturing				
Products or materials purchased for resale	374	370	379	435
3 TOTAL INVENTORIES	16,103	17,613	17,288	17,242

NOTE: Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

TABLE 9
MAN-HOURS, MANUFACTURING ACTIVITY, ONTARIO, 1966 AND 1967

Man-Hours	1966	1967
	Number	
Total man-hours worked in all manufacturing operations	16,617,951	14,506,119
Total man-hours not worked, but nevertheless paid (e.g. paid vacation, sick leave, statutory holidays, etc.)	1,547,419	1,425,419
TOTAL MAN-HOURS PAID	18,165,370	15,931,538

IRON FOUNDRIES

LIST OF ESTABLISHMENTS, ONTARIO, 1967

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Establishment	Location
Alloy Foundry Co. Ltd.	Merrickville
Auto Specialties Mfg. Co. (Canada) Ltd.	Windsor
Bell City Foundry (Brantford) Ltd.	Brantford
Benn Iron Foundry Ltd.	Wallaceburg
Bibby Foundry Ltd.	Galt
Bowmanville Foundry Company Limited	Bowmanville
Brown Foundry Ltd.	Morrisburg
Canada Iron Foundries Ltd. (Foundry Div.)	171 Eastern Ave., Toronto
Canada Iron Foundries Ltd. (Foundry Div.)	Hamilton
Canada Iron Foundries Ltd. (Foundry Div.)	Hamilton
Canada Iron Foundries Ltd. (Pipe Div.)	324 Cherry Street, Toronto
Canada Valve Ltd.	Kitchener
Chrysler Canada Ltd., Windsor Foundry	Windsor
Cornwall Brass and Iron Foundries Ltd.	Cornwall
Crawford Machine and Foundry Limited	Woodstock
Crowe Foundry Limited	Hespeler
Cunningham Foundry and Machine Co. Ltd.	St. Catharines
Date Industries Ltd.	Ayr
Designed Precision Castings Ltd.	Brampton
Domestic Foundry	Windsor
Fergusson, J. R., Company Ltd.	Dundas
Fittings Limited	Oshawa
Ford Motor Co. of Canada Ltd.	Windsor
Galt Brantford Malleable Ltd.	Brantford
Galt Malleable Iron Limited	Galt
Grinnell Company of Canada, Limited	2440 Dundas St. W., Toronto
Hamilton Foundry Co. Ltd.	Hamilton
Hastings and Sons Foundry Ltd.	Stratford
Holmes Foundry Company Limited	Sarnia
Hopper Foundry Limited	Forest

LIST OF ESTABLISHMENTS, ONTARIO, 1967

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Establishment	Location
Imbleau, H., and Son Ltd.	Renfrew
International Malleable Iron Co. Ltd.	Guelph
Keleher Foundry Co.	Guelph
Kent Foundry Ltd.	Chatham
Lawson McMullen Victoria Ltd.	Ottawa
Lincoln Foundry Ltd.	St. Catharines
Link-Belt Limited	Elmira
McCoy Archie, Hamilton Ltd.	Hamilton
McLean Bessemer Industries Ltd.	Brantford
Marshall, A. Foundry	Windsor
Massey-Ferguson Industries Ltd.	Brantford
Niagara Foundry Company Ltd., The	Niagara Falls
Ontario Malleable Iron Co. Ltd., The	Oshawa
Orangeville Foundry	Orangeville
Preston Foundries Ltd.	Preston
RTA Industries Ltd. (Lake Foundry Div.)	Grimsby
Shantz Foundry Ltd.	Preston
Snowdon's General Castings Co. Ltd.	Brantford
Standard Induction Castings Ltd.	Windsor
Stanton Pipes Ltd.	Hamilton
Stittsville Foundry	Stittsville
Tomlinson Industries Ltd.	350 Front St. E., Toronto
Toronto Foundry Ltd.	1884 Davenport Rd., Toronto
Wabi Iron Works Ltd., Cobalt Foundry Div.	Cobalt
Wabi Iron Works Ltd.	New Liskeard
Wabi Iron Works Ltd.	Sudbury
Walkerton Foundry	Walkerton
Welland Iron and Brass Ltd.	Welland
Wells Foundry Limited	London
Western Foundry Co. Ltd.	Greenville
Woodside Machinist and Foundry Co. Ltd.	Port Arthur
Wotherspoon, J. A., and Son Ltd.	Oakville

CONCEPTS AND DEFINITIONS

ESTABLISHMENT

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting the following principal statistics:

- Materials and supplies used
- Goods purchased for resale as such
- Fuel and power consumed
- Number of employees and salaries and wages
- Man-hours worked and paid
- Inventories
- Shipments or sales."

Each establishment is required to report on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

HEAD OFFICES AND AUXILIARY UNITS

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are either included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

(a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;

(b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the firm, when all establishments are in the same industry (3 or 4 digit). When establishments of such firms are coded (1) to different industries within a major group (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

EMPLOYEES

(a) Production and related workers - Manufacturing activities

In addition to those engaged in production and assembling activities, production and related workers in manufacturing activities include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. For those establishments reporting on the "long" form, production and related workers engaged in manufacturing activity are reported as those receiving pay during the last pay period of each month, an average for the year being obtained by summing the monthly figures and dividing by 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. In the case of the establishments reporting on the "short" form, respondents are requested to report average annual figures. The man-hours of production and related workers in manufacturing activity represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays, etc.) Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated. In reporting overtime hours, respondents are requested to report only hours actually at work.

(b) Production and related workers - Non-manufacturing activities

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.

(c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vice-presidents, comptrollers, secretaries, treasurers, etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

(d) Sales and distribution workers

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

(e) Total employees

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

WORKING OWNERS OR PARTNERS

These are not now included in the statistics of employees and salaries and wages. There is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each Census return. Withdrawals of working owners are defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

SALARIES AND WAGES

Salaries and wages refer to gross earnings of employees before deductions for income tax and employees contributions to social services such as sickness,

accident and unemployment insurance, pensions, etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any other allowance forming part of the worker's earnings. Payments for overtime are included. Figures on salaries and wages refer to the calendar year.

FUEL AND ELECTRICITY

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives, etc.), not to purchases unless the quantities are substantially the same. Any fuel and electricity produced by establishments for internal consumption are not included in the total cost. Values represent laid down cost at the establishment including freight, duty, etc. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

MATERIALS AND SUPPLIES

(a) Manufacturing activities

Figures represent quantities and laid down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. These statistics represent only commodity items of physical goods (cost of services or overhead charges such as advertising, insurance, depreciation, etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

(b) Non-manufacturing activities

1. Purchases for re-sale as such

Figures represent cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

2. Other materials and supplies used

Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Amounts paid to outside contractors for construction and repair work are not included nor is the cost of purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

SHIPMENTS

(a) General

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. The unsold portion at year end of consignment shipments in Canada is treated as inventory and not as shipments but all shipments to foreign countries for which the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of net change in progress payments over the year.

(b) Shipments of goods of own manufacture

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost (book value) of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm, when such units are treated as separate establishments. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity are collected by means of the Commodity questionnaire. Such shipments together with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

(c) Shipments of goods not of own manufacture

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

(d) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees, such as revenue from goods produced or purchased for rental (the book of value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's own products, sale of used materials (excluding sale of used fixed assets) research and development work, etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

INVENTORIES

(a) Manufacturing activities

Values represent the book values of manufacturing inventory owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payments accounts are maintained, the change in these accounts is treated as a net adjustment to shipments. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

(b) Non-manufacturing activities

Figures represent the book value of inventory of goods purchased for resale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

VALUE ADDED

(a) By manufacturing activities

Figures are compiled by deducting the cost of manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture adjusted for changes in the value of inventories of finished goods and goods in process).

(b) By non-manufacturing activities

The figures are compiled by deducting the cost of goods purchased for resale (adjusted for changes in the value of inventories of goods purchased for resale) and the cost of non-manufacturing materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

(c) By total activities

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net output or net production.

PUBLICATIONS

This publication is prepared annually by the Ontario Statistical Centre of the Economic and Statistical Services Division, Department of Treasury and Economics. In addition to this report, annual statistics are published on other manufacturing industries. Publications listed below can be obtained from the Ontario Statistical Centre, Queen's Park, Toronto, Canada.

Catalogue Number	Industry Title
5-1250	Breakfast Cereal Manufacturers
5-1280	Biscuit Manufacturers
5-1430	Distilleries
5-1450	Breweries
5-1470	Wineries
5-1510	Leaf Tobacco Processors
5-1530	Tobacco Products Manufacturers
5-2130	Cordage and Twine Industry
5-2480	Foundation Garment Industry
5-2491	Fabric Glove Manufacturers
5-2580	Coffin and Casket Industry
5-2720	Asphalt Roofing Manufacturers
5-2731	Folding Cartons and Set-up Boxes
5-2732	Manufacturers of Corrugated Boxes
5-2910	Iron and Steel Mills
5-2920	Steel Pipe and Tube Mills
5-2980	Metal Rolling, Casting and Extruding, N.E.S.
5-3230	Motor Vehicle Manufacturers
5-3260	Railroad Rolling Stock Industry
5-3651	Petroleum Refining Industry
5-3652	Manufacturers of Lubricating Oils and Greases

